

Written Opinion of the Inter-
national Searching Authority

PCT/DE2004/001447
Appended Sheet

Re Point V

V.1 The present international Application does not satisfy the requirements of the PCT because the subject matter of independent Claim 12 is not novel, in the meaning of Article 33(2) PCT.

Document US 5,096,388 A, which is considered the most proximate related art, describes

- a micropump having at least one pump chamber (60, 136, 138) (Figs. 1,3,5,6);
- the pump chamber is bordered by a cover plate 130 and a diaphragm (142,160) (Figs. 5,6);
- pump diaphragm (142,160) is held on a base plate (140,178) (Figs. 5,6);
- a fluid may be sucked in via an intake (132) and sucked out via an outlet (134) (Figs. 5,6);
- the pump diaphragm is formed of a polysilicon layer (polysilicon, Claim 14).

Consequently, since all the technical features of independent Claim 12 are described in document US 5,096,388 A, its subject matter is not novel (Article 33(2) PCT).

V.2 The subject matter of independent Claim 1 appears to satisfy the requirements of the PCT with regard to novelty and inventive activity, since from the related art named in the

Search Report there seems not to emerge, directly or indirectly, any method for producing a micromechanical component, according to which, with the aid of a first and a second etch stop layer (e.g. SiO_2) a respectively first and second functional layer (e.g. polysilicon) are applied, these functional layers being patterned after the application of an etching mask (e.g. photoresist).

From document 5,096,388 A or from the document named in the specification, US 6,390,791 A, only technically customary etching methods appear to be inferrable which pattern the functional areas of a micropump, without providing the use of etch stop layers of SiO_2 .

V.3. Dependent Claims 2 through 11 refer back to Claim 1, and therefore also fulfill the requirements of the PCT with regard to novelty and inventive activity.

The combination of features respectively defined in Claims 13 through 15 do not appear to be known from document US 5,096,388 A or from any document named in the Search Report, and do not appear to be made obvious by any of these documents individually or in combination.